Commonwealth of Kentucky
Energy and Environment Cabinet
Department for Environmental Protection

DIVISION FOR AIR QUALITY

DEP7007J

VOLATILE LIQUID STORAGE

Source Name _____ I.D. # _____

SECTION A GENERAL Emission Point #: _____

(Note: Manufacturer's specifications, drawings, and other pertinent information must accompany all control plans. Also, prior to installing any equipment, approval from the Fire Marshall's Office shall be obtained. If more space is required to answer a question, use a separate sheet. Attach a Material Safety Data Sheet (MSDS) for each product stored.)

1) How are the incoming products received (*Check or, if more than one mode is used, specify the percent volatile liquid throughput by each mode and for each product):*

(a) Tank Truck ☐ _____ % (b)Trailer ☐ _____ % (c) Railcar ☐ _____ %

(d) Pipeline ☐ _____ % (e) Marine Tank ☐ _____ % (f) Barge ☐ _____ %

(g) Other (*specify)* _____

2) How are outgoing products transported *(Check one or, if more than one mode is used, specify the percent volatile liquid throughput by each mode and for each product:*

(a) Tank Truck ☐ _____ % (b)Trailer ☐ _____ % (c) Railcar ☐ _____ %

(d) Pipeline ☐ _____ % (e) Marine Tank ☐ _____ % (f) Barge ☐ _____ %

(g) Other (*specify)* _____

PRODUCT DATA:

Product Type (a)	Liquid Density (lb/gal)	Liquid Molecular Weight	Maximum		Minimum		Maximum Annual Throughput (gals)
			Temp (^oF)	Vapor Press (PSI)	Temp (^oF)	Vapor Press (PSI)	

3) (a) List liquid stored (premium gasoline, regular gasoline, unleaded gasoline, acetone, isopropyl alcohol, Xylene, etc.) Attach a Material Safety Data Sheet (MSDS) for each product stored.
(b) The color of the tank increases the storage temperature of an outdoor tank above ambient temperature by 2.5^o F for aluminum (silver) paint, 3.5^o F for black paint, and 0^o F for white paint.

4) If gasoline is not handled, or if the outgoing product is shipped entirely by barge or marine tank, OMIT Sections B and C. Go to Section D.

5) If incoming product is received by pipeline, barge, or marine tank, the plant is a "BULK GASOLINE TERMINAL." Omit Section B. Complete Sections C and D only.

6) If the incoming product is received by tank truck, trailer, or other non-marine vessel, the plant is a "BULK GASOLINE PLANT." Complete Sections B and D only.

Section B

7) IS THERE A VAPOR BALANCE SYSTEM (GASOLINE ONLY) FOR:

_____ (a) Filling storage tanks from transport vehicle tanks

_____ (b) Filling transport vehicle tanks from storage tanks

8) FOR LOADING GASOLINE INTO TRANSPORT VEHICLE TANKS, IS THERE A:

_____ (a) Submerged fill tube; or,

_____ (b) bottom-fill

9) FOR VAPOR BALANCE SYSTEM:	**YES**	**NO**
(a) Are the fittings vapor tight?	__	__
(b) Do the fittings close automatically upon disconnection?	__	__
(c) Is the vapor return line free of restrictions?	__	__
(d) Does it have interlocking devices which prevent transfer until the vapor return hose in connected?	__	__
(e) Are transport vehicle tank latches closed at all times during loading?	__	__
(f) Are there any leaks from the pressure/vacuum valve and hatches during loading?	__	__
(g) Is there a pressure relief valve on the storage vessel? (Pressure setting: _____ psig)	__	__
(h) Is there a pressure relief valve on the transport vehicle tanks? (Pressure setting: _____ psig)	__	__

(i) Diameter of the liquid fill line: _____ inches, or _____ cm

(j) Diameter of the vapor return line : _____ inches, or _____ cm

(Note: The cross sectional area of the vapor return hose must be at least 50% of that of the liquid fill line.)

For existing sources, if any of the above and other requirements of the applicable regulation are not being met, the deficiencies shall be rectified in an expeditious manner following approval by the Division.

Section C

10) Is there a vapor control system for filling gasoline transport vehicles from storage tanks? ☐ Yes ☐ No

(a) Is the system vapor tight? ☐ Yes ☐ No

(b) Are the hatches on the transport vehicles closed at all times except during the installation of the submerged fill lines? ☐ Yes ☐ No

11) What type of vapor control device is used (*check*):

(a) Incinerator _____ **(b) Adsorber** _____ **(c) Other (specify)** _____

12) For the control device, specify:

(a) Diameter of the stack or vent __ **in., or** _ **cm**

(b) Height of the stack or vent _____ **in., or** _____ **cm**

(c) Quantity of gases discharged _____ **acfm**

(d) Temperature of gases discharged _____ **^{o}F or** _____ **^{o}C**

(e) Concentration of hydrocarbon emissions from the device _____ **grains/ft or** _____ **mg/liter**

(f) Date installed _____

13) What are the measures taken to prevent liquid spills and evaporation, especially after hoses are disconnected?

_____

_____

_____

14) What are the measures taken to clean up spills and prevent gasoline from entering the sewers or water sources (*such as streams*)?

_____

_____

_____

For existing sources, if any of the above or other requirements of the applicable regulations are not being met, the deficiencies shall be rectified in an expeditious manner following approval by the Division.

Section C

LOADING RACK(S) ONLY

15) **Rack(s) No.: ____ Date loading rack constructed, reconstructed, or modified _____**
MM/DD/YY

No. Lanes/rack _____ No. risers/loading arms per rack _____

16) **Is the loading rack subject to State Regulation 401 KAR 60:005 (40 CFR 60 Subpart XX), Standards of performance for gasoline terminals?**
☐ **Yes** ☐ **No**

17) **Is the loading rack subject to State Regulation 401 KAR 61:055, Existing loading facilities at bulk gasoline terminals?**
☐ **Yes** ☐ **No**

NOTE: Complete one of the following forms for all loading racks subject to each of the above regulations. Example: if you have multiple racks not subject to the same regulation, complete two forms and estimate the gallons loaded per.

Product Type	Maximum Loaded Gals/Hr	Maximum Loaded Gals/Yr

*Please provide MSDS sheets for each product type, if not provided under Section A.
Please provide a copy of all emission calculations for the loading rack.
Please attach a diagram for the loading of each product type.

Section C

18) Time required to load standard size (8,500/9,000 gallons) tanker (min.): _____

19) Barge/Pipeline unloading rate (barrels/hr.) _____; (barrels/yr.) _____

20) Does the petroleum storage capacity exceed 300,000 barrels?

_____ Yes

_____ No

Maximum Achievable Control Technology (MACT) (Reference 40 CFR 63, Subpart R):

Note: *The following information needs to be completed once per terminal, provided no changes have been made. If changes have been made to the terminal since any previous submittal, such as addition of new storage tanks, pipeline equipment, etc. please update your terminal information by completing a new form and calculations of potential to emit (PTE).*

Note: Please provide a copy of all calculations to determine PTE from the terminal.

21. Does the PTE of the terminal equal or exceed 10 tons per year (TPY) for any one hazardous air pollutant (Reference 401 KAR 63:060, Hazardous air pollutants and source categories) or 25 TPY for any combination of hazardous air pollutants?

_____ Yes (Reference 40 CFR 63.422 through 63.428(h)(4)(iv), and skip the rest of this section)

_____ No (Complete items a-h)

a. Does the terminal handle any reformatted or oxygenated gasoline containing methyl tertbutyl ether (MTBE), CF?

b. Federally enforceable control efficiency of the vapor processing system used to control emissions from fixed-roof gasoline storage vessels (fraction), CE _____.

Note: Please reference Section D, Storage tanks, to determine the values of T_F, T_E, T_{ES}, and T_L.

Section C

21c. PIPELINE EQUIPMENT COUNT:

Equipment Type	(Gasoline) COUNT	(Other*)
Valves		
Pumps		
Connectors		
Risers/Loading Arm Valves		
Open-ended Lines		
Other		

*Other: Diesel Fuel, Kerosene, etc.

21d. Federally enforceable gasoline throughput (liters/day) limit or gasoline throughput (liters/day) in compliance with paragraphs (c), (d), and (f) of 40 CFR 63.420, Applicability Q _____

e. Does the loading rack have a vapor collection and processing system installed on the emission stream, K?
_____ Yes, (Reference item #12, Section C)
_____ No

f. Federally enforceable emissions standards for the vapor processor outlet emissions (mg of total organic compounds per liter of gasoline loaded), EF _____

g. Do all gasoline cargo tankers have a valid and current certificate to satisfy the test criteria, Method 27, for a vapor-tight gasoline tank truck, L? _____ Yes _____ No

h. Calculate emission-screening factor for bulk gasoline terminals, E_T _____.

The specific recordkeeping requirements for nonmajor terminals is determined by the value of E_T:
_____ $0.50 \leq E_T \leq 1.00$ (Reference 40 CFR 63.420 (c)(1) & (2) and § 63.428 (i)
_____ $E_T < 0.500$ (Reference 40 CFR 63.420 (d)(1) & (2) and § 63.428 (j)

Section D Please refer to the appropriate regulations for storage vessels (401 KAR 59:050, 60:005 [NSPS], or 61:060) for the requirements. Please refer to AP-42, Liquid storage tank section.

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Part 1: All Storage Tanks

Tank ID #	Product Stored	Date Installed	Tank Diameter (Feet)	Tank Height or Length (Feet)	Maximum Hourly Filling Rate (Gallons/hr.)	Maximum Annual Throughput (Gallons/Year	Tank Capacity (Gallons)

Part 2: Fixed Roof Tanks

Tank ID #	Roof			Side Color	Average Vapor Space Height [2] (Feet)	Horizontal (H) or Vertical (V)	Underground (Yes/No)	Part 3: Variable Vapor Space Tanks	
	Color[1]	Type[4]	Height [4]					Volume Expansion Capacity[3] (Gallons)	Number of Transfers into the Tank Per Year

(1) White, aluminum (specular, diffuse), light gray, medium gray, slack, etc.
(2) The vapor space in a cone roof is equal in volume to a cylinder which has the same base diameter as the cone, and is one third (1/3) the height of the cone.
(3) Volume of the variable vapor space.
(4) Dome, flat, or cone. Include dome or cone height (ft.). For dome roofs, specify radius of roof; for cone roofs, specify slope of roof. If dome radius is not known, assume dome roof radius = shell diameter.

Section D Please refer to the appropriate regulation for storage vessels (401 KAR 59:050, 60:005 [NSPS], or 61:060) for the requirements. Please refer to AP-42, Liquid storage tank section.

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Part 3: Internal Floating Roof Tanks

Tank ID #	Bolted or Welded Deck	Type of Primary Seal[4]	Presence of Secondary Seal	Number of Support Columns	Column Cross Sectional Dimensions	Length of Deck Seam (Feet)[5]

Part 3: Internal Floating Roof Tanks

Tank ID #	Types of Deck Fittings[6]	Number of Each Type	Design of Each Deck Fitting[7]	Number of Each Design

(4) Vapor-mounted or liquid-mounted seal, etc.
(5) Indicate continuous or panel deck construction.
(6) Access hatch, automatic gauge float well, column well, ladder well, roof leg, hanger well, sample pipe, sample well, stub drain, or vacuum breaker, etc.
(7) Diameter sizes; bolted or gasket covers; built-up or pipes column well; sliding cover or fabric seal; adjustable or fixed roof leg/hanger well; etc.

Section D Please refer to the appropriate regulation for storage vessels (401 KAR 59:050, 60:005 [NSPS], or 61:060) for the requirements. Please refer to AP-42, Liquid storage tank section.

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Part 4 External Floating Roof Tanks

Tank ID #	Riveted or Welded Deck	Type of Primary Seal[8]	Type of Secondary Seal[9]	Shell Condition[10]

Part 4: External Floating Roof Tanks

Tank ID #	Types of Deck Fittings[11]	Number of Each Type	Design of Each Deck Fitting[12]	Number of Each Design

(8) Vapor-mounted, liquid-mounted, or mechanical-shoe seal, etc.
(9) Shoe-mounted, rim-mounted, or with weather shield, etc.
(10) Light rust, dense rust, or gunite lined.
(11) Access hatch; guide-pole, gauge-hatch, gauge-float, or sample well; vacuum breaker; roof drain; roof leg; rim vent; etc.
(12) Diameter sizes; bolted, gaskets, and/or sliding cover; unslotted or slotted guide-pole well; adjustable or fixed roof leg; etc.